REMARKS

Claims 1-15 were pending in this application.

Claims 1, 2, 4-7, 9-12, 14 and 15 have been rejected.

Claims 3, 8 and 13 have been objected to.

Claims 1-15 have been amended as shown above.

Claims 16-19 have been added.

Claims 1-19 remain pending in this application.

Reconsideration of Claims 1-19 is respectfully requested.

I.   ALLOWABLE SUBJECT MATTER

The Applicant thanks the Examiner for the indication that Claims 3, 8 and 13 would be allowable if rewritten in independent form to incorporate the elements of their respective base claims and any intervening claims. Because the Applicant believes that the remaining claims in this application are allowable, the Applicant has not rewritten Claims 3, 8 and 13 in independent form.

II. REJECTION UNDER 35 U.S.C. § 102

The Office Action rejects Claims 1, 2, 4-7, 9-12, 14 and 15 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,125,103 to Bäuml et al. (*"Bäuml"*). This rejection is respectfully traversed.

A prior art reference anticipates the claimed invention under 35 U.S.C. §102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP §2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. MPEP §2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

The system described in *Bäuml* represents blocks of information by mapping them onto a block (vector) Au of length N of carrier values. (*Col. 4, lines 5-9*). A modification vector of complex values, P(U), is multiplied, component-wise, by the block of carrier values. (*Col. 4, lines 28-36*). From those products, a favorable transmit signal is chosen for actual transmission. (*Col. 4, lines 39-41*). The Applicant respectfully points out that a system like that taught by *Bäuml* is described in the last paragraph of the Applicant's Background of the Invention:

> In the known transmission system the crest factor is reduced in two steps: first a number of alternative sequences are generated for each dataword, and second the alternative sequence with the lowest peak power value is selected for transmission to the receiver. The alternative sequences are generated by multiplying carrier values, i.e. the multicarrier representation of the datawords, with arbitrarily selected modification vectors.
>
> (*Application, page 2, first full paragraph*).

With regard to independent Claims 1, 6 and 11, the Office Action identifies p(1)...p(U) as digital words, but *Bäuml* describes them as complex values. (*Col. 4, lines 29-32*). *Bäuml* clarifies their nature when it teaches that their selection from the set $\{\pm 1, \pm j\}$ is advantageous (*Col. 4, lines 49-52*). Thus, *Bäuml* does not teach mutually different digital words as recited in independent Claims 1, 6 and 11. As a result, *Bäuml* fails to anticipate this element of the Applicant's invention as claimed.

Furthermore, the Office Action identifies au(1)...au(U) as alternative sequences, but *Bäuml* describes them as the product of block (vector) Au of carrier values and U vectors of complex values, P(U). (*Col. 4, lines 28-36*). As such, *Bäuml* does not describe alternative sequences formed by combining mutually different digital words with a dataword, as recited in independent Claims 1, 6 and 11. Thus, *Bäuml* also fails to anticipate this element of the Applicant's invention as claimed. However, the Applicant has amended independent Claims 1, 6 and 11 in order to more clearly recite the Applicant's invention. The Claims now recite the limitation that the alternative sequences generated for each dataword are alternative <u>digital</u> sequences.

For these reasons, *Bäuml* fails to anticipate the Applicants' invention as recited in Claims 1, 6 and 11 (and their dependent claims). Accordingly, the Applicants respectfully request withdrawal of the § 102 rejection and full allowance of Claims 1, 2, 4-7, 9-12, 14 and 15.

III.   **NEW CLAIMS**

The Applicants have added new Claims 16-19. The Applicants respectfully submit that no new matter has been added. The Applicants respectfully request entry and full allowance of Claims 16-19.

IV.   **CONCLUSION**

For the reasons given above, the Applicant respectfully asserts that all pending claims are in condition for allowance. The Applicant thus respectfully requests reconsideration and full allowance of all pending claims and that this application be passed to issue.

SUMMARY

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com.*

The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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Date: _June 16, 2004_

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